INSTRUCTIONS

-J05515 REV. 2011-12-02

HEADLAMP MODULATION KIT, FLD/FLH/FLT MODELS

GENERAL

Kit Number

67700139

Models

For model fitment information, see the P&A retail catalog or the Parts and Accessories section of www.harley-davidson.com (English only).

For use with a 1 watt - 60 watt bulb load at 12VDC.

This kit is not compatible with LED headlamps.

Installation Requirements

Electrical Contact Lube (H-D Part No. 99861-02) or equivalent is required after battery cable disconnection. This item is available from a Harley-Davidson dealer.

⚠WARNING

The rider's safety depends upon the correct installation of this kit. Use the appropriate service manual procedures. If the procedure is not within your capabilities or you do not have the correct tools, have a Harley-Davidson dealer perform the installation. Improper installation of this kit could result in death or serious injury. (00333a)

NOTE

This instruction sheet refers to service manual information. A service manual for this year/model motorcycle is required for this installation and is available from a Harley-Davidson dealer.

Kit Contents

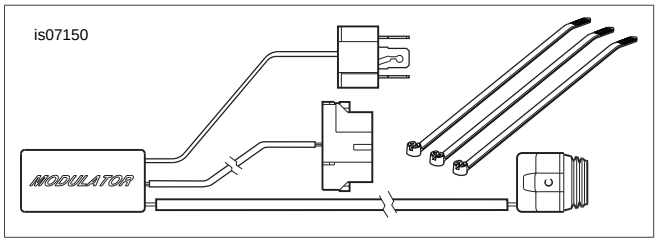

Figure 1. FLD/FLH/FLT Headlamp Modulation Kit

Table 1. Kit Contents

Description (Quantity)	Part Number
Modulator assembly	Not sold separately
Mounting tape	Not sold separately
Cable straps (3)	10065

PREPARATION

NOTE

For vehicles equipped with security siren:

- ***2007 and later:*** *Verify that the Hands-Free Fob is present. Turn the ignition key switch to IGNITION.*
- ***2006 and earlier:*** *Disarm the siren with the key fob.*

For Vehicles With Main Fuse:

⚠WARNING

To prevent accidental vehicle start-up, which could cause death or serious injury, remove main fuse before proceeding. (00251b)

1. See the service manual and remove the main fuse.

For Vehicles With Main Circuit Breaker:

⚠WARNING

To prevent accidental vehicle start-up, which could cause death or serious injury, disconnect negative (-) battery cable before proceeding. (00048a)

1. See the service manual to remove the seat and disconnect the negative (black) battery cable from the negative (-) battery terminal. Retain all seat mounting hardware.
2. **For ALL models:** Turn the ignition key switch OFF if not already done.

INSTALLATION

NOTE

The switch/sensor wiring must be mounted to the handlebar externally.

FLD (Dyna ® Switchback) and FLHR models: See the service manual to disconnect and remove the headlamp from the nacelle.

FLHT and FLTR models: See the service manual to remove the outer fairing and windshield.

FLD Models

1. Remove the clutch hand lever bracket upper clamp screw.
2. Get the modulator assembly from the kit. Position the modulator switch/sensor assembly to the clamp, and align the holes.
3. Fasten the switch to the bracket with the screw, and tighten to 72-108 **in-lbs** (8.0-12.0 Nm)
4. Route the modulator wire conduit down the handlebar and into the rear opening of the nacelle. Plug the modulator input pin connector into headlamp connector [38B] on the vehicle harness inside the nacelle.
5. Fasten the wire conduit to the handlebar with cable straps from the kit.

FLHR Models

1. Get the modulator assembly from the kit.

   From inside the nacelle, feed the modulator switch/sensor and wires through the clutch-lever side opening below the handlebar.
2. Remove the clutch hand lever bracket upper clamp screw.

   Position the modulator switch/sensor assembly to the clamp, and align the holes. Fasten the switch to the bracket with the screw, and tighten to 72-108 **in-lbs** (8.0-12.0 Nm)
3. Fasten the wire conduit to the handlebar with cable straps from the kit.
4. Plug the modulator input pin connector into the headlamp connector [38B] on the vehicle harness inside the nacelle.
5. Secure the module and wires inside the nacelle with a cable strap from the kit.

FLHT Models

NOTES

- *Ambient temperature should be **at least** 60 °F (16 °C) for proper adhesion of the modulator to the vehicle.*
- *Allow AT LEAST 24 hours after applying the modulator before exposing to extreme weather.*
- *The adhesive bond will increase to maximum strength after about 72 hours at normal room temperature.*

1. Get the modulator assembly from the kit. Move the clutch-lever side **rubber handlebar grommet** aside.

   From inside the fairing, feed the modulator switch/sensor and wires through the opening between the inner fairing and fairing cap.
2. Remove the clutch hand lever bracket upper clamp screw.

   Position the modulator switch/sensor assembly to the clamp, and align the holes. Fasten the switch to the bracket with the screw, and tighten to 72-108 **in-lbs** (8.0-12.0 Nm)
3. Fasten the wire conduit to the handlebar with a cable strap from the kit.

NOTE

The module should be mounted to the underside of the clutch-lever side fairing support bracket.

4. Clean the module mounting area on the fairing support bracket with a 50-50 mixture of isopropyl alcohol and distilled water. Allow to dry thoroughly.
5. Remove the liner from the adhesive tape on the module. Carefully position the module to the fairing support bracket, and press firmly into place. Hold the module in position with steady pressure for a few seconds.
6. Plug the modulator input pin connector into headlamp connector [38B] on the vehicle harness.
7. Retain the wires inside the fairing with cable straps from the kit.

FLTR Models

NOTES

- *Ambient temperature should be **at least** 60 °F (16 °C) for proper adhesion of the modulator to the vehicle.*
- *Allow AT LEAST 24 hours after applying the modulator before exposing to extreme weather.*
- *The adhesive bond will increase to maximum strength after about 72 hours at normal room temperature.*

1. Get the modulator assembly from the kit.

   From inside the fairing, feed the modulator switch/sensor and wires through the center of the radio carrier bracket and upward to the clutch-lever side handlebar controls.
2. Remove the clutch hand lever bracket upper clamp screw.

   Position the modulator switch/sensor assembly to the clamp, and align the holes. Fasten the switch to the bracket with the screw, and tighten to 72-108 **in-lbs** (8.0-12.0 Nm)
3. Fasten the wire conduit to the handlebar with a cable strap from the kit. Fasten the conduit to one of the harnesses above the steering head with a second cable strap.

NOTE

The module should be mounted to the brake-lever side wall of the radio carrier bracket.

4. Clean the module mounting area on the radio carrier bracket with a 50-50 mixture of isopropyl alcohol and distilled water. Allow to dry thoroughly.
5. Remove the liner from the adhesive tape on the module. Carefully position the module to the radio carrier bracket, and press firmly into place. Hold the module in position with steady pressure for a few seconds.

NOTE

*The modulator will support only one headlamp bulb. For highest visibility to oncoming traffic, apply modulation to the **LEFT-SIDE** headlamp.*

6. Plug the modulator input pin connector into **left-side** headlamp connector [38B] on the vehicle harness.
7. Retain the wires inside the fairing with a cable strap from the kit.
8. Plug the modulator output pin connector into the back of the **left-side** headlamp.

ALL Models Except FLT

Plug the modulator output pin connector into the back of the headlamp.

RETURN TO SERVICE

NOTE

*Verify that the ignition key switch is in the OFF position **before** installing the main fuse or attaching the negative battery cable.*

1. **Models with main fuse:** See the service manual and install the main fuse.

   Models with main circuit breaker: See the service manual and attach the negative battery cable. Apply a light coat of Harley-Davidson electrical contact lubricant (Part No. 99861-02), petroleum jelly or corrosion retardant material to the negative battery terminal.

NOTE

The modulator switch light sensor requires daylight or very bright indoor lighting to enable headlamp modulation. Aiming a flashlight directly into the sensor may also provide sufficient illumination to allow modulation.

2. Test the headlamp modulation system for proper operation. Turn the ignition key switch ON. Proper operation is:

- With the modulation toggle OFF, the headlamp will be illuminated as normal.
- With the modulation toggle ON and daylight sensed, the **low beam** headlamp will pulsate between full brightness and a substantially lower level, approximately four times per second. The headlamp will not go completely dark during the modulation cycle.

  The high beam headlamp **does not** modulate.

3. **FLD and FLHR models:** See the service manual to install the headlamp into the nacelle.

   FLHT and FLTR models: See the service manual to install the outer fairing and windshield.

⚠WARNING

After installing seat, pull upward on seat to be sure it is locked in position. While riding, a loose seat can shift causing loss of control, which could result in death or serious injury. (00070b)

4. **For ALL models:** See the service manual and install the seat.

IN USE

A light sensor mounted in the modulator switch assembly senses the presence of daylight. Government regulations only allow headlamp modulation in daylight.

The switch can be used to turn the modulation on or off at any time, provided it is enabled by the daylight sensor and the low beam is selected. The high beam headlamp **does not** modulate.

If equipped, the transmitter in the Remote Control Garage Door Opener Kit (Part No. 91558-01A) will not work while the low beam is modulating, Turn the modulator off to operate the garage door opener.